STATE OF NEW HAMPSHIRE

DEPARTMENT OF HEALTH AND HUMAN SERVICES

DIVISION OF PUBLIC HEALTH SERVICES

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John A. Stephen
Commissioner

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Director

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To: N.H. Licensed Veterinarians:

The Department of Health and Human Services, in conjunction with the NH Department of Agriculture and other state and local agencies, will resume active surveillance for West Nile virus in New Hampshire on June 1, 2004. This endeavor includes receiving reports and specimens of mosquitoes, horses, humans and birds.

Case Finding

Your assistance is appreciated in case finding of equine subjects who exhibit the following symptomatology. Reports should be made to the State Veterinarian's office, 603-271-2404.

Any horse with a clinical illness that includes one or more of the following CNS signs:

- Ataxia or stumbling and incoordination
- Inability to stand,
- Acute paralysis, weakness in limbs, limb paralysis, death.

These signs may be indistinguishable from those produced by other equine encephalitides, including rabies, equine herpesvirus-1, equine protozoal myelo-encephalitis, and eastern, western or Venezuelan equine encephalomyelitis.

Laboratory Analysis

Serologic tests, cell culture and molecular assays are available to detect the presence of antibody and virus due to West Nile virus (WNV) infection. Multiple tests will be performed to confirm virus infection and in some cases, follow up (convalescent) specimens will be requested. The following information is critical for accurate interpretation of test results:

- Date of onset of disease symptoms
- Dates of specimen collection
- Travel history
- Vaccination (disease) history
- Severe neurological disease
- Specimen types and amounts

Acute serum (>=3ml) and CSF (>=1ml) for screening by enzyme immunoassays should be collected within the first 14 days following onset of symptoms and sent immediately to the State Public Health Laboratories. In general, convalescent-phase specimens should be drawn approximately 10-14 days after acute phase specimens.

CSF as well as brain and other tissue will also be tested by cell culture. The specimens for viral isolation should be kept cold on wet ice prior to and during transport or if already frozen, submitted on dry ice. Brain specimens will be evaluated for rabies virus, and all negative samples will then be tested for the presence of arboviruses such as WNV and EEEV.

Statistically, two out of every three horses that become infected with WNV will survive. For horses that survive, most will have a full recovery. Fever has been detected in less than one quarter of all WNV confirmed cases.

When considering the time to vaccinate, remember horses should be immunized at least two weeks before mosquitoes are likely to bite them.

The following web addresses will provide information and recommendations that will assist you in answering questions or concerns from the public.

http://www.aphis.usda.gov/lpa/issues/wnv/wnvguide.html
http://www.nwhc.usgs.gov/research/west_nile/west_nile.html
http://www.cdc.gov/ncidod/dvbid/westnile/index.htm

General WNV questions may be directed to the West Nile Information Line, 1-866-273-6453. You may also visit our website, http://www.dhhs.nh.gov/ for additional information such as fact sheets and test results.

For further technical information regarding diagnostic testing and specimen submission, please call the Public Health Laboratories Virology/STD section, Denise Bolton or Sue MacRae, at 603-271-4620, or 1-800-852-3345, extension 4620.

Case Definition: Equine West Nile Virus (USDA, APHIS May 2002)

A clinical illness that includes one or more of the following (CNS signs):

- Ataxia
- Inability to stand,
- Acute paralysis, limb paralysis, death.

Confirmed Case: Clinical illness plus one of the following:

- WNV antibody isolated from tissue, blood, CSF,

Or

- Equal to or greater than 4 fold change in Plaque Reduction Neutralization Test (PRNT) titer between paired sera;

Or

- IgM Ab capture PRNT titers in single serum

On behalf of the NH Department of Health and Human Services, Division of Public Health Services, Communicable Disease Control Section, and the NH Department of Agriculture, Markets and Food, Division of Animal Industry, we thank you for your continued cooperation and support of our unified efforts to identify the presence of and emphasize prevention measures for West Nile virus in our state.

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State Veterinarian

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